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ABSTRACT

Presentations and other materials are provided from the Asia and the Pacific Programme of Educational Innovation for Development (APEID) Planning and Review Meeting on Work as an Integral Part of General Education. The focus is on how education, through an orientation to work, could help to decrease the gravity of the problems of population growth, often resulting in unemployment and diminishing resources. Chapter One is an introduction to work-oriented education and approaches to it in various countries. Chapter Two contains five presentations on experiences in work-oriented education in five countries during 1983, which analyze existing policies, objectives, plans, structures, approaches, and experiences in linking education and work as an essential part of general education. The papers are "Experiences of Work-Oriented Education in India" (A. K. Sacheti), "Experiences of Work-Oriented Education in Indonesia" (Benny Karyadi), "Work Experience in General Secondary Education in the Philippines" (E. Gonzalez), "Work Experience as an Integral Part of General Education in the Socialist Republic of Viet Nam" (Nguyen Duc Minh), and "Work Experience as an Integral Part of General Education in Thailand" (Swasdi Suwana-agsorn). Chapter Three describes visits by meeting participants to selected projects and institutions in two different settings--one in a rural area and another in an industrial area. Chapter Four offers suggestions for activities to be pursued at the national and international levels. The agenda and a description of a pilot work experience project in Thailand is appended. (YLB)

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Work and General Education

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Preface

The APEID Planning and Review Meeting on Work as an Integral Part of General Education was jointly organized by ACEID, Unesco Regional Office for Education in Asia and the Pacific, and the Vietnamese National Commission for Unesco, and hosted by the National Institute of Educational Science in Hanoi from 18 to 25 October 1984.

The Meeting was attended by one participant each from India, Indonesia, the Philippines and Thailand, two participants from the host Centre and three observers from the Socialist Republic of Viet Nam, as well as by an ACEID staff member. The list of participants and observers of the Meeting is provided in *Annex III.*

The Meeting addressed itself to the following topics:

1. To review the studies undertaken in five countries during 1983, and analyse existing policies, plans, structures, approaches and experiences in linking education and work as an essential part of general education.

2. To review, amend, further develop and complete a draft training manual.

3. To develop suggestions for future activities to be promoted in APEID Member countries with a view to developing the skills of persons complementing work-oriented educations.

Prior to the Meeting, during 1983 the five participating countries India, Indonesia, the Philippines, Socialist Republic of Viet Nam and Thailand prepared National Studies on Work and Vocational Experiences within the context of General Education. A synthesis of the five countries experiences was prepared by the secretariat for review and updating by the participants of the Meeting and for amendments on the synthesis to be done accordingly.

Topics	*Convener*	*Panelists*
1. Policy, planning and management of work-oriented general education.	Dr. E. Gonzalez (Philippines)	Mr. B. Karyadi (Indonesia)
2. Objectives of Work-oriented Education	Mr. A. Dyankov	All participants
3. Curriculum content and teacher training	Mr. Swasdi Suvana-agsorn (Thailand)	Dr. A.K. Sacheti (India)
4. Community involvement	Dr. Nguyen The Quang (Vietnam)	Dr. E. Gonzalez (Philippines)
5. Career guidance	Mr. Benny Karyadi (Indonesia)	Mr. Swasdi Suvana-Agsorn (Thailand)
6. Innovative features of selected pilot projects	Dr. A.K. Sacheti (India)	Dr. Nguyen Duc Minh (Vietnam)

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Besides this, the participants undertook an in-depth study of the following aspects of the work-oriented education in their countries for presentation and discussions in the meeting according to the following table :

Procedures of the meeting. The Meeting was inaugurated by Prof. Luong Ngoc Toan, Vice-Minister of Education of the S.R.V. Mr. Cao Dac Hung, Secretary General a.l. of the Vietnamese National Commission for Unesco, welcomed the participants of the Meeting. Mr. K. Englund, Resident Representative of the UNDP Office in Viet Nam, delivered his welcoming address. Mr. Nguyen Duc Minh also addressed the meeting and Mr. A. Dyankov from Unesco ROEAP explained the background and objectives of the Meeting.

The topics were presented and discussed in plenary sessions. The group prepared a final copy of the "Synthesis of Experiences in the Implementation of Work as an Integral Part of General Education".

Based on the analysis and conclusions of the in-depth study of the above topics, as well as on the observations and findings while study-visiting selected Vietnamese pilot projects in both rural and industrial settings the participants reviewed and finalized a Draft Training Manual for three categories of educational personnel, namely :

a) policy makers, administrators and educational planners;

b) curriculum developers, teacher trainers and supervisors; and

c) teachers conducting work-oriented activities in general education schools.

The Draft Training Manual was adopted with certain modifications and recommended for future use, not only by the countries participating in this meeting but also by all other APEID member countries, where work-oriented general education and socially useful productive work of the students are being implemented or planned.

The participants presented their discussion papers in which they analysed the countries experiences within the context of general education as presented in the respective national studies. They also up-dated each individual country study with the most recent developments and achievements. The Final Report of the Meeting also gives recommendations for future activities to sustain the efforts of the different countries in pursuing work oriented education.

Chairmanship of the plenary meetings was rotated among the different countries as follows :

Session 1 Socialist Republic of Viet Nam	Session 4 Philippines
Session 2 India	Session 5 Thailand
Session 3 Indonesia	Session 6 Socialist Republic of Viet Nam

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Chapter One

INTRODUCTION

The concept of work as an integral part of basic education is currently accepted as a significant feature of most educational systems. This has arisen as a result of the new needs that society is facing and the new responsibilities that the school systems must take to contribute to the reduction of society's problems.

Problems of population growth, often resulting in unemployment and diminishing resources are almost universal. Governments are taking steps to intervene in these areas. Individually or collectively, countries have organized programmes with several projects to cope with the situation, but the rate at which these problems continue to grow needs greater effort on the part of the people. For this purpose, education has been called upon to serve as the pivotal point in improving the prospects of society to meet its problems successfully.

Unesco has engaged in several such efforts. A Regional Planning Panel Meeting was organized in which concepts were presented on how education, through an orientation to work, could help to decrease the gravity of the problems. National studies in India, Indonesia, the Philippines, the Socialist Republic of Viet Nam and Thailand have made analyses of specific situations and made specific recommendations for action, and many agreements for action have been achieved.

Work orientation in general education programmes can improve not only the students' lives but the lives of their families and their communities. Parents and educators are now more aware that there exists a great number of environmental problems, such as drug abuse, socially unacceptable behaviour among the young, eroding values of the people, general poverty and the inability to pursue higher education leading to drop outs from the formal system. These are problems that exist in many countries and it is conjectured that if the potential of the young is harnessed productively their basic idealism would be fulfilled. The redirection of the energies of the young is particularly useful and necessary during the adolescent period at which time they are in secondary schools. The experiences in the different countries support these assumptions.

Activities organised for the students must, of course, be within the intellectual and physical capabilities of the pupil. The curriculum planners must make the necessary studies to determine this synchronization of work experience activities with the age and interests of the pupil. The teachers have to be continuously aware that the activities are contributing and not interfering with the general growth and development of the pupil.

Programmes of work-oriented education, from primary to secondary level, are most useful if they are general in nature. They seek to develop prevocational skills and mostly aim at developing and enhancing work ethics. The greater

emphasis is on the development of proper work habits, of a sense of responsibility for and pride in one's work, of honesty, of thrift and of morality in the work activity. Even for school leavers at the primary and secondary levels who would have immediately joined the world of work, professional skills are not expected. General skills and knowledge that would make them trainable for any given occupation would, however, be required. This is the concern of the work-oriented education programme.

Although this area in education is not entirely new to most countries, the new emphasis on it requires new orientation on the part of school administrators, supervisors and teachers. The emphasis on values development through work experience would demand that these school leaders themselves have the proper attitudes towards work. They would need to understand the philosophy on which the programme is based and to believe in this, for them to be able to facilitate the achievement of the objective through the curriculum that has been developed for this purpose.

Work-oriented programmes and work-oriented activities could differ. The use of indigenous resources, both human and material, would affect the implementation of the programme in different countries. The absence or presence of required materials would make implementation vary in different situations. Some schools may be able to utilize the community's business and industrial resources. Others may need to organize most of the work experiences right in the school simply because such institutions are not present in the community. In some schools experts in the different occupations may be called upon to provide both guidance and information on the proper implementation of the programme. In others this may not be possible.

It is desirable that experiences in different countries implementing work-oriented education be shared so that continuous improvement can be made on existing programmes. The general agreement, however, among the participants in the meeting is that work-oriented education should be an important factor in the total development of the individual. As a component of a general education programme it should occupy a pivotal part of the basic education and developmental goal of education.

Chapter Two

EXPERIENCES IN WORK-ORIENTED EDUCATION

Work-oriented education is receiving new and greater emphasis as countries try to find better ways to cope with the changed environment. The people's belief in education as a means to improving the society's ability to face problems that accompany change is reflected in the present thrust towards work experience in general education. It is hoped that, given this kind of education, the young will be better equipped with the necessary concepts, skills and attitudes that will enable them to participate in and contribute to their country's efforts to solve its socio-economic problems.

The experiences in India, Indonesia, the Philippines, the Socialist Republic of Vietnam and Thailand present different ways of achieving the goals. The task of preparing the young through total human development with focus on work experiences is being done in these countries. Depending on the individual country's specific needs and resources, policies are set and programmes are developed. Although the programmes have basic components of content, organization and evaluation there would be specifics in these components that respond to the particular situation in each.

A review of the experiences in the participating countries is expected to be a way of sharing and learning among them. Future activities in the different countries could be the adoption or adaptation of these experiences as each exerts efforts in improving its programme.

EXPERIENCES OF WORK-ORIENTED EDUCATION IN INDIA

A.K. Sacheti

Introduction

In ancient India, the concept of manual work as a tool of education was recognized long before the advent of formal education. Moreover, the need of linking work with education was also emphasized by the several committees and commissions appointed for the purpose. But, this was hardly given any practical shape in the school curriculum till basic education based on Gandhian thoughts was introduced in the country. This also did not last long because of the complexities and certain shortcomings in the implementation, besides fast changing socio-economic conditions of the society. Work experience (WE) as suggested by the Education Commission (1964-2966) was a noteworthy effort to bridge work with education in the changed situations.

The National Policy on Education Resolution adopted by the nation's Parliament in 1968 laid down the following principle in the area of Work Experience and National Service:

> The school and the community should be brought closer through suitable programmes of mutual service and support work experience and national service, including participation in meaningful and challenging programmes of community service and national reconstruction, should accordingly become an integral part of education. Emphasis in these programmes should be on self-help, character formation and developing a sense of social commitment.

Through the above resolution, the nation concurred with the report of the Education Commission (1964-1966). The commission expressed itself very strongly in favour of relating education to life and productivity. It stated that work experience should be introduced as an integral part of all education – general or vocational and defined work experience as "participation in productive work in the school, in the home, in a workshop, on a farm, in factory or in any other productive situation".

The meaning and implementation of the work experience was provided by the framework for the curriculum for the ten year school (1976) developed by the National Council of Educational Research and Training (NCERT). The Work Experience nomenclature was retained only to be renamed as the 'Socially Useful Productive Work' by the Review Committee (1977). While giving the new name the committee felt that the central place of this curricular area into the school curriculum was underscored and the concept of social service did not find a place in the productive aspects of work. There was also an inadequate time allocation. In view of the above, the Committee described this curricular area (SUPW) as purposive meaningful, manual work resulting in either goods or services useful to the community. The concept was further extended to higher secondary stage during 1978 by a parallel review committee.

It is clear from the historical presentation given above that work-oriented education was long been a part of school education in India in one form or the other and has provided varied innovative experiences in the field of education. Therefore, some of them are reviewed under several aspects of work experience for better understanding in the pages which follow hereafter. Here, it is pertinent to mention that education in India is a State matter and States are endowed with powers to adopt or adapt nationally accepted education policies to suit their needs. This is the reason why we find great variance in the overall picture of any educational scheme in India. Even work – oriented education is offered under different names like work-experience, craft education, work education, life oriented education, socially useful productive work and so on. The latest and more comprehensive term for work oriented education in India is Socially Useful Productive Work (SUPW). In fact the scope of SUPW is vast so that individual schools will not find difficulty in identifying the activities and providing suitable experiences. That is why the States are changing to SUPW instead of work experience.

Objectives of work-oriented education

The objectives laid down by the Education Commission, Curriculum for the ten year school – a framework, and the various States and agencies are almost similar to that of Nationally stipulated objectives for WE/SUPW. These are to:

a) acquaint the children with the world of work and the productive occupations going on in the community and to develop in them a sense of respect for manual workers;

b) develop in the children an awareness of social problems and inculcate in them a positive attitude towards community service;

c) develop in them a desire to be useful members of the society and to contribute their best to the common good;

d) inculcate in them a positive attitude of teamwork and socially desirable values like self-reliance dignity of labour, tolerance, co-operation, sympathy and helpfulness;

e) help them in understanding the principles involved in the various forms of work;

f) lead the children to participate increasingly in productive work, as they go from one stage of education to another, thereby enabling them to earn while they learn; and

g) provide opportunities for creative self-expression and for the development of problem-solving abilities.

Structure

An account on this regard is given below to throw light on existing and planned structure of work oriented education in the country.

Co-ordination, administration and supervision. There is a WE/SUPW Cell in the SIEs or SCERTs of almost all the States of the country. This cell is entrusted with task of planning and implementing the scheme in the State. However, the administrative control remains with the State Director of Education. The District Education Officers/Assistant Education Officers or special officers are directly responsible for supervision and evaluation of the programme in schools. Some States have formed special evaluation committees to review the programme of work-oriented education.

Academic inputs. A study of curriculum in different States indicates that the programme of SUPW has not been implemented uniformly in all the States and the stress of the programme still seems to be on production activities. Their educational significance, linkages with other subject areas and activities related to community work are under emphasized in practice.

About 24.56 per cent of schools have separate teachers for work-experience as shown in the Third All India Educational Survey (1973). Pre-service training of teachers for work-oriented educational programmes is provided by the Teacher Training Colleges in India. So far as in-service teacher training is concerned the NCERT, SCERTs/SIEs and other teacher training colleges conduct training programmes of different durations.

Evaluation of the work oriented programme rests with the State Boards of Secondary Examination for the lower secondary stage while for the lower stages it is left to individual schools like other curricular areas. In different states a different pattern of evaluation is in vogue.

In the area of Guidance and Counselling not much has been achieved. However, the Ministry of Education, Government of India has set up a Central Bureau of Educational and Vocational Guidance in 1954 to give technical advice and help to the guidance movement in the field of secondary education. In all there are 13 Bureaux rendering guidance services in the States.

Management

There is no elaborate formal system of management of work oriented education in India, it is all participatory and decentralized. The work education programmes have largely remained school based. Schools sometimes have an implementation committee consisting of concerned teachers who work collectively to oversee the school programme.

There are sometimes block-level or district level committees or groups identified by the concerned board of examination for a given region. This committee interacts with the school to provide the needed guidance.

Content

The NCERT document entitled "Socially useful productive work curriculum-developing and implementing the programme", has suggested that the content should be based on the needs of the child, the school and the community.

Therefore, it has to be flexible. The activities which make the curriculum are drawn from social work and production work going on in the community on the one hand and school subjects on the other. In brief, the content has no boundaries and its scope is unlimited since the whole environment around a school provides an umbrella for this.

As per the document, SUPW activities should represent basic needs of the students and the society. These needs, by and large, should come from food; clothing; shelter; health and hygiene; cultural and recreational activities; and community work and social service.

The curricular area has two components: (1) core activities; and (2) work practice.

Under core activities besides bringing attitudinal change, through certain regular activities, the students explore the world of work to familiarise themselves with different work situations; experiment with materials, tools and techniques to acquaint themselves with them. Production of goods and services repeatedly form the work practice component. In this, the students develop skills and competencies for undertaking productive work and services.

In Classes I and II the activities are of self expressional type, at Classes III, IV and V some systematic type of work, i.e., wherein some steps are involved or some planning is required, in Classes VI to VIII strenuous work with higher skills which may require close co-ordination of hand and head and at Classes IX and X work practice is emphasized in the form of crafts or trades and services. At the higher secondary stage SUPW takes the form of projects.

Development of instructional materials. The nature of SUPW is different from other school subjects, hence routine types of texual materials have no place in this. This curricular area is concerned with learning by doing, therefore, instructional materials in the form of curriculum guides, handbooks, resource units, unit plan and doing/learning units play a vital role in the implementation of the programme. The need of different types of literature becomes still more relevant to satisfy the problem-solving approach and the integration of knowledge relating to different subjects with SUPW as envisaged in the programme.

A large number of States and Union Territories have developed a variety of instructional materials as per their needs and requirements. The NCERT has made a modest beginning by developing a Source Book in four volumes comprising different types of activities. The books are being sent to the education departments and State Councils of Educational Research and Training for adoption or adaptation.

Teacher proparation. The Review Committee on the ten year school curriculum, advocated involvement of all teachers in SUPW and provision for employment of skilled personnel for different activities. To provide philosophy, concept and objectives of SUPW, and some involvement in practical training, the National Council of Teacher Education has recommended incorporation of SUPW as one of the subjects in the teacher training programme. This recommendation has been well received by the States and has resulted in modifications of teacher training curricula.

Work and general education

In a few States and Union Territories, Basic Training Colleges which used to prepare craft teachers, still exist. These institutions prepare teachers in a few selected crafts, besides organising in-service programmes for general teachers and refresher courses for the craft teachers. With the introduction of SUPW, the craft teachers have been assigned to this curricular area in many States. The number of such teachers is negligible and the requirement is immense. To fulfil this void, organisation of in-service programmes is the only remedy. This is being taken up by the concerned agencies on a scale which remains by and large inadequate to meet the needs.

Time allocation. When Basic Education was officially introduced in the year 1957, the time allocations for it was two hours for Classes I and II, two and half hours for Classes III to V and three hours for Classes VI to VIII per day. Moreover, 33 per cent of this was to be utilized for practical work.

Later, in the name of work experience it was considered an essential component of general education at all stages of school education with a subject status. The time allocation was 15 per cent of the total weekly time. Since 1977 it has been called Socially Useful Productive Work, with the following class-wise time allocations:

a) In grades I to IV or V 20%
b) In grades V, VI to X 18.7%
c) In grades XI to XII 15.0%

However, Time allotment by the States and Union Territories for SUPW shows a great deal of deviation from the National recommendations.

Provision of necessary facilities. Core activities are selected in such way that the facilities required are available within the school or community, but for work practice, since the needs are specific, definite inputs including certain infrastructural facilities and expertise are made available. To meet specific needs, a provision of a small fund is either made by the Education Department of the State Government or the school is allowed to collect a nominal fee from each student. However, the amount so collected or received is not spent on the purchase of hardware. In some States, the fund allocated to the school for SUPW is considered as a revolving fund, i.e., money spent on activities is recovered by selling the products.

Supervision and evaluation. Supervision of the work education programme is mostly entrusted to SUPW cells working under the State Department of Education or under the State Council of Educational Research and Training. The officers of these organisations undertake supervision of the programme and simultaneously provide academic guidance in implementation of the programme.

Patterns of evaluation of the work oriented education programme vary from State to State. In some States it is internal, while in some States it is a combination of internal and external evaluation. Internal evaluation requires maintenance of commulative records showing continuous performance of pupils. Grades or marks

for SUPW are not counted towards award of certificates, though in some States they are shown in mark sheets of the final examination.

The pupils performance in this curricular area is not evaluated through written tests, but observation and oral tests are commonly employed, besides actual practice at lower secondary and secondary levels.

Non-formal programmes

Non-formal Education Centres. The NCERT had launched an experimental non-formal education programme in different parts of the Country. Since February, 1981 about 228 centres have been established in different states of the country. At eight centres the Craft/vocation oneutation has been tried out. A provision of Rs. 2,000/– was made for the purchase of raw material. Other inputs were arranged by the community.

Trysem. The National Scheme of Training of Rural Youth for Self-Employment (TRYSEM) was initiated by the Government of India in 1979. The main thrust of the scheme is on equipping rural youth with necessary skills and technology to enable them to seek self-employment. Only young people belonging to families of the target groups of small and marginal farmers, agricultural labourers, rural artisans and others below the poverty line are eligible. Normally persons between 18 and 35 years of age are covered. The target is to train at least 200,000 rural young people every year or a minimum of 40 in each Developmental Block of the country.

Krishi vigyan kendras (agricultural science centres). The Krishi Vigyan Kendras (KVKS) offer non-formal training programmes in agriculture and home sciences of varying duration – a week to several months to rural men and women of all ages. The training is provided in manual skills with a view to increase the productivity of the agriculture dependent segment of the population. Most of those centres have been financed by the Indian Council of Agricultural Research and a few by the Governments of the States. The training covers improved methods of farming, seed testing, grafting of buds, food preservation, milk testing and quality control, fish rearing, bee keeping, poultry, etc.

Evaluation of work-oriented education programme

The work-oriented education programmes in the country have been evaluated by the NCERT to determine the appropriateness and weaknesses of the programme in detail. The findings are available in the following publications.

a) Work Experience in Schools – Third Education Survey;

b) Socially Useful Productive Work as it is Practised in some Selected Institutions;

c) Socially Useful Productive Work in India – A Status Study; and

d) The Authentic State Reports – presented in the National Seminar on SUPW (1983).

Work and general education

Apart from the above, there are some more studies which are underway. These studies are:

a) An Analytical Study of Madhya Pradesh Experiment – Earn While You Learn.

b) An Analytical Study of Work Education Component in Teacher Education Curricula.

c) A Study Leading to the Publication of Success Stories.

Work-oriented education – proposals for the Seventh Five Year Plan

The Planning Commission, Government of India while formulating draft proposals for the Seventh Five Year Plan constituted a Working Group on Secondary Education to take stock of the situation regarding work education in the country. The Group reviewed the two schemes viz. Socially Useful Productive Work and Vocationalization of Education and made several recommendations which are to be implemented during the Seventh Five Year Plan (1985-1990). The recommendations are as under :

Socially useful productive work

i) It is recommended that the SUPW should not only be a separate subject in itself, but also must form as far as possible a part of each subject so as to result in a pervasive influence in the curriculum which would lead to the desired change in attitudes among the students.

ii) Active involvement of community in the conduct of innumerable SUPW activities must be ensured by the schools as this will result in the approval and sanction of SUPW by the community.

iii) In so far as allocation of time for SUPW is concerned, there should be enough flexibility so that SUPW may be pursued during school hours, beyond school hours, during vacations and as a part of the curricular as well as co-curricular activities.

iv) In order to perform the above functions in particular, and in general, all activities relating to curriculum development, training and orientation at the national level unit of SUPW in NCERT should be adequately strengthened with experts in major areas of SUPW and parallel units in SCERTs/SIEs at the state level should be created for similar functions.

v) Keeping in view the importance of the programme of SUPW, it is recommended that a target based scheme on the above lines may be prepared and introduced as a central scheme with 100 per cent assistance. It is estimated that total expenditure on this would be at the level of Rs. 4.00 crores.

Vocationalization of education

i) In view of the importance of linking education with productivity, a major impetus has to be given in the 7th and the subsequent Five Year Plans to vocationalization of higher secondary education. The schools, have, therefore, to be encouraged to introduce vocational stream in the +2 stage on a large scale.

ii) Facilities of vocational education at the +2 stage should be suitably diversified to cover a large number of fields such as agriculture industries, trade and commerce, medicine and public health, home management, arts and crafts, Secretarial training, entrepreneural training etc.

iii) In designing vocational courses, the schools should keep in mind the regional needs and local employment opportunities.

iv) More courses which have a relevance to rural needs, for example those dealing with agriculture and allied sectors, should be introduced.

v) The vocationalised courses should not be terminal in the sense that a student is unable to go for higher education; but at the same time, the vocationalization should be of adequate level to ensure that the skill obtained will be of meaningful help and use in a person's career.

vi) The vocationalization programme should be enlarged further in scope so as to include practical training and also to ensure that an adequate level of skills is imparted.

vii) Suitable instructional material for the programme should be developed based on a vocational survey and regional manpower surveys.

viii) The minimum qualification for recruitment to the services in Government and public sector undertakings should be modified so that preference is given to those completing the vocationalised stream.

ix) On the lines of All India Board of Vocational Education, Boards of Vocational education may be set up in each state to suggest programmes of vocationalization and co-ordination between the various vocational/ professional interests such as trade and industry, government departments, public undertakings and other employing agencies.

x) More central assistance may be given for introduction of programmes of vocationalised education for enlarging the coverage of the programmes. Vocationalization may be introduced in 400 schools per year on 100 per cent centrally assisted basis i.e. 2000 schools or 4 per cent of the total during the 7th Five Year Plan.

xi) An important component of the proposed centrally sponsored scheme should be reorganisation of the Directorate of School Education and the setting up of special cells in the State Education department for monitoring the implementation of the programme of vocational of education.
tion.

EXPERIENCES OF WORK-ORIENTED EDUCATION IN INDONESIA

Benny Karyadi

Introducing work-oriented education in general education

Young people have a constructive and important role to play in the national development process. It is obvious that to continue national development depends on adequate creative and productive citizens. Therefore the core of the development is the development of human resources. Which of the human resources has to be developed? Certainly not the quantity, rather it is the quality that needs to be elevated. This means that education is a service of vital importance. Only when this service is effective can human resources be developed to high physical, spiritual and mental capabilities.

Viewed from this angle, education is not only of social and spiritual value, it is of high economic value as well. The point is, how exactly to educate pupils, in what direction, what to impart and for what purpose. Questions have also been raised about the structure, organization of education, curriculum, teachers, environment, teaching materials, process and product of education.

The rapid expansion of knowledge and technology in most parts of the world causes a constantly increasing demand for technical and high level training characterizing the change of pattern in life and the change of the needs of society. With the changing needs of society, however, the aspirations with regard to the schooling of the youngsters have changed too. Young people in Indonesia now are confronted with confusion and complicated social problems that earlier generations never encountered. Probably more than at any other school level, senior high schools in Indonesia, followed by junior high schools, seem to be surrounded by controversies. A high proportion of our senior high school graduates tend to get education in Higher Education. In fact, about 40 per cent of them were accepted in universities and institutes of higher education. On the other hand a large amount of middle level labourers are needed to accelerate the rate of national development. Therefore efforts had been made by introducing practical skill education programmes to the 1975 general education curriculum, besides the general and academic education programmes, to provide the students with some basic skill needed for work. Since the understanding of skill could cover a very broad aspect, it should be stressed here that the understanding of skill is limited to the skill education which is directly connected with the world of work. In senior high school it is called pre-vocational education.

This effort is in line with the Educational Policy of increasing the relevance of education to the needs of society.

Objectives of work-oriented education

The objective of the skill education programme in formal as well as non-formal institutions, covers affective, psychomotor as well as cognitive domains. In formal schools this educational programme is intended to develop :

1. positive attitudes towards work;
2. skill to do practical work;
3. ability to solve practical problems; and
4. creativity and imaginitive skills to produce something new.

In a non-formal education setting, this educational programme is intended to :

1. increase basic knowledge and skills which are functional to earn a living and to live in the community; and
2. further develop pre-vocational competencies among the pupils.

Organization of work-oriented education

In formal schools, skill education has been introduced in the 1975 curriculum as a separate subject which is given with emphasis on the teaching and learning process, so as to develop general capabilities. In its implementation each school has to choose types of skills on the basis of :

1. the interest of the students;
2. the needs and characteristics of the society; and
3. the capability of the school to carry out the programme.

Non-formal education takes place in learning centres. Today almost all districts of all the provinces have a youth centre or a learning centre. It can also take place in a private home or a village hall (Balai Desa), especially for pupils who live far from the district learning centre.

In non-formal education, learning activities on pre-vocational programmes are organized through vocational courses, learning groups and apprenticeships. The main characteristic of the learning groups is that the learning process is carried out through learning by doing (kejar) and by teaching each other. The pupils are guided by one or more tutors from the village or the nearby village. Apprenticeship is carried out by putting 3 to 5 learners in a vocational skill industry so that the learning process takes place in the framework of learning, doing and further learning.

Structures of work oriented education

Work oriented education is conducted through formal as well as non-formal education.

Work and general education

Co-ordination. The implementation of skill education in primary and general secondary schools is carried out under the supervision and management of the Regional Office of Education in each province on the guidelines issued by the Directorate of Primary Education and the Directorate of General Secondary Education. In non-formal education it is also carried out under the supervision and management of the Regional Office of Education in each province on the guidelines issued by the Directorate of Community Education.

At the central level, the responsibility of supervision and management of skill education lies with the Directorate General of Primary and Secondary Education in co-operation with the Office of Educational and Cultural Research and Development.

Academic inputs. Evaluation of the 1975 curriculum was undertaken during the year 1982, based on the results of monitoring and supervision in 1980/1981. A result shows that skill education in all school levels has not yet been adequately implemented. This is due to the fact that the perception of the educational personnel in the provinces, which include school principals and teachers, on the role of skill education in 1975 curriculum was mistaken. Besides, there were not sufficient facilities available in the schools. Education in schools was concentrated on the improvement of student intelligence. The objective of education in school is mainly to prepare the student to continue to the higher educational level. Therefore, it creates an assumption that skill subjects are less important. It was confirmed by the data and information which show that Junior and Senior high schools generally carried out home economics education (45.7 per cent of schools) because it was easily done and it was not difficult to provide teachers. Other skills, such as services and agriculture, were conducted by 17.7 per cent of schools, automotive by 2.5 per cent of schools and maritime studies by only 0.5 per cent of schools.

Curriculum content. The primary school curriculum provides two sub-fields of skill education, these are home economics and agriculture. The secondary school 1975 curricula provides six sub-fields of skill education : services; technology; home economics; agriculture, handicrafts and maritime. These sub-fields provide 17 skill programmes : administration/accounting; typing; electronics; automotive; carpentry; food preparation;, clothing; household; agriculture; fisheries; animal husbandry; weaving; wood carving; ceramics; sea fishing; bicycle workshop (for junior high school) and navigation (for senior high school).

There is a variety of types of educational programme in non-formal institutions which follow the needs of the developing community. There are for the time being 10 groups of skills : home economics; health; sports; agriculture; arts; technology; handicrafts and industry; administration and trade; languages and special programme.

Community involvement. Community involvement in supporting skill education in the formal and non-formal schools is implemented in the form of providing resource persons, instructors from industries and other types of facilities needed by the school to carry out work-oriented education programmes.

Some schools have conducted co-operation with private industries so that their students have the opportunity to practice their skills in a real work situation.

In the future, community involvement needs to be encouraged in the form of sharing ideas, participation in developing the curriculum and providing facilities for apprenticeship programmes. Especially, in organising non-formal education, the involvement of the community is most significant in providing teachers, training places and learning facilities for training.

Career guidance

One of the efforts to promote a proper attitude towards work is the adoption and implementation of career guidance in general education. This programme has been developed and tried out in some junior and senior high schools in the Development School Pilot Projects since 1981.

Objectives. In general, career guidance is intended to help students to develop self recognition and understanding and prepare themselves to work or to study further and become useful members of society. Specifically, the objectives of career guidance programmes are among others, to help students :

a) recognize and understand their own abilities, interests and attitudes;

b) realize and understand the values they believe in and the values cherished in society;

c) know various kinds of work available in society which may suit their own interest and ability;

d) develop a positive and sound attitude towards the world of work;

e) understand the needs of the society as well as of the whole nation; and

f) be able to plan their own way of life.

Instructional materials. In order to facilitate the implementation of the programme by teachers and school counselors, the career guidance programme is presented in the form of a package. Each package consists of general guidelines for teachers or facilitators, objectives, topics and sub-topics, procedures and steps of activities and learning aids/resources. In connection with the objective mentioned above, five career guidance packages have been developed, these are :

Package 1 : self-recognition.

Package 2 : values

Package 3 : understanding environment

Package 4 : constraints

Package 5 : planning for the future

At present these packages have been distributed to all general senior secondary schools.

Work and general education

Besides these packages, as a separate programme or a programme integrated in the curriculum, career guidance is implemented in various ways, among others unit teaching, career day, home room activity, field trip, lectures from resource persons and interviews.

Time allocation. The career guidance programme is presented through intra-curricular, co-curricular as well as extra-curricular activities. It needs two contact hours (90 minutes) a week from the first semester to the sixth semester.

Preparation of teachers for work-oriented education

Teacher qualification. Concerning the profile of teachers who handle skill education at general education no data are available so far.

Teachers of skill education at primary and secondary schools are graduates of Teacher Training Schools and of the Institute of Teacher Education respectively. In addition, the schools also utilize local specialists in certain vocational areas, usually they are from the community or the world of trade and industry. For non-formal skill education programmes, the teachers are basically the community people themselves, parents or employers of the world of trade and industry who are specialists in a specific area.

Supervision. To increase the capability of skill education implementors, efforts of continuous supervision are made. One form of supervision being developed and carried out at the SMP and SMA is the training known as "In-Service On-Service Programme" or PKG. Training is done at teacher training centres. It includes : (a) orientation on training materials in teacher training centres, usually presented by way of lectures and discussions; (b) practising in the field, which means application of concepts and methods learned at that centre. This practising activity is carried out by the teachers of the school concerned for a certain period of time; (c) Discussions on the results at the teacher training centre; and (d) formulation and conclusion of results which will be very valuable input for further training and for improvement of teacher/learning activities for the field of study concerned.

Try out of work-oriented education at the general secondary schools

Up until now there has been little experience concerning research and try out in the field of work-oriented education in general education. But it is worth reporting that two trial activities have been made :

Try out of the "Guidelines for the Implementation of Skill Education at the Junior and Senior High Schools". This activity was conducted in the academic year 1982/1983 by the Directorate of General Secondary Education in 12 public Junior High Schools (SMP) and 12 public Senior High Schools (SMA) within the domain of the Regional Office of Education and Culture of the Jakarta Metropolitan Area.

The objective of the try-out in general is to improve the "Guidelines for the Implementation of Skill Education at the SMP and SMA" as well as "A Master List of Skill Education Equipment for the SMP and SMA". Specifically, the objective

is to get information about (a) the strengths and weaknesses of the Guidelines and of the Master List, (b) conformity between the Guidelines and the Master List.

Try-out of terminal skill education at pilot schools. Since the academic year of 1980/1981, the eight Development School Pilot Projects (namely in Jakarta, Bandung, Yogyakarta, Semarang, Surabaya, Malang, Ujung Pandang and Padang) have tried out terminal skill education at the senior high school level.

Each pilot school tried out at least two kinds of skill education programme which may consist among others of home economics, automotive, welding, or electronics. Each programme is a self contained package which can be completed in, at most, one year. This skill education is meant for graduates of the SMA of the pilot school concerned or other senior high schools who want to prepare themselves for the world of work or who cannot continue their studies to higher education. Those who have completed a terminal skill programme are given a certificate. Information about the graduates of terminal skill education programmes shows that most of them have found employment of various types.

In the try out stage of terminal skill education programmes, some pilot schools have also begun establishing co-operation with private organizations. For instance, the pilot school in Malang has co-operated with an electronics factory PT National Gobel, and the pilot school in Surabaya with a similar company, PT Philips Ralin Elektronika.

After some necessary improvements have been made on the basis of the results of the try-out, the terminal skill education programmes will be disseminated to other schools outside the pilot schools.

WORK EXPERIENCE IN GENERAL SECONDARY EDUCATION IN THE PHILIPPINES

E. Gonzalez

Policies, plans and emerging trends

The Philippine Constitution, 1972 provides that:

> All educational institutions shall aim to inculcate love of country, teach the duties of citizenship and develop moral character, personal disciplines, and scientific, technological and vocational efficiency.

The addition of scientific and technological efficiency in the new Constitutional goal for education where before it was only vocational reflects the emerging demands of science and technology on the modern world. These demands were being felt in the country even before 1972 and the schools must respond to these.

An Educational Decree, 1972 formulated on the basis of the Constitutional provision stated the aims of education as:

1. provide for a broad general education that will assist each individual in the peculiar ecology of his own society to
   a) attain his potential as a human being;
   b) enhance the range and quality of individual and group participation in the basic functions of society; and
   c) acquire the essential educational foundation for his development into a productive and versatile citizen;
2. train the nation's manpower in the middle level skills required for national development;
3. develop the high-level professions that will provide leadership for the nation, advance knowledge through research, and apply new knowledge for improving the quality of human life; and
4. respond effectively to changing needs and conditions of the nation through a system of educational planning and evaluation.

For secondary education specific goals were set in an Order of the then Department of Education and Culture issued on June 20, 1973 as follows:

1. Develop a reasoned commitment to the goals of national development by cherishing, preserving and developing moral and spiritual values and other aspects of the national heritage desirable in Philippine society;

2. Understand the wide possibilities of the arts and the sciences as permanent sources of pleasure and profit, and discover, broaden and heighten his abilities in and appreciation for them;

3. Acquire the basic occupational skills, knowledge and information essential for obtaining initial gainful employment and for making an intelligent choice of occupation or career;

4. Acquire further skills in thinking, speaking and writing and develop the ability to react intelligently and creatively to mass media and other life situations;

5. Obtain experience and form desirable attitudes to understand himself and his people as well as other races, places and times through opportunities for living vicariously with a wide variety of peoples, thereby promoting a keen sense of self and family and of national and international communities; and

6. Demonstrate understanding, acquisition and application of the basic concepts and methodologies of the different branches of human knowledge in order to promote his physical, intellectual, emotional and social well-being.

Every subject component of the secondary school programme aims to achieve these objectives as the total programme does through an interrelatedness of objectives, content and strategies of the various components or what the programme itself calls a multidisciplinary-interdisciplinary approach. Hence all the subject areas must develop Filipino values, knowledge and appreciation of science and arts, basic occupational skills and the work ethic, communication skills, understanding of self and others, and the ability to apply concepts, theories, skills that are specific to a given discipline and therefore, learned as the main content of the subject.

Focuses or new thrusts are brought into the programme as new directions are taken by the national society. This is to make the young aware of and knowledgeable in national undertakings. This is to develop in them a participatory citizenship so that as they mature and progress into adulthood they can take part intelligently, not only in the efforts towards nation building but also in the benefits that an educated and developed nation makes accessible to its citizens. For the present, and in answer to the national demand to improve the nation's economic sufficiency and to strengthen the human dignity of the general population, the secondary school system has brought focus to values development and productivity in the educational process.

These new thrusts have been proposed as new subjects in a Proposed 1989 Secondary Education Curriculum which will be tried out in 1985. They are to be named Values Education and Work Experience. The first is to provide a cognitive base for the values development process that is to take place in all the other subject areas. The second is to be the income-generating practicum for the vocational course that is to be called Home Management and Technology. Skills development

that would be more modern technology oriented and therefore would aim at greater efficiency and work ethic orientations. The proposed objectives of the new curriculum are to:

1. develop an enlightened commitment to the national ideals by cherishing, preserving, and developing moral, spiritual, and socio-cultural values as well as other desirable aspects of the Filipino heritage;
2. obtain knowledge and form desirable attitudes for understanding the nature and end of man, and therefore, of one's self, his own people, and other races, places and times, thereby, promoting a keen sense of self, of family and of national and international communities;
3. develop skills in higher intellectual operations, more complex comprehension and expression activities, and in reacting intelligently and creatively to life situations;
4. acquire work skills, knowledge and information and a set of work ethics essential for making an intelligent choice of an occupation or career and for specialized training in specific occupations;
5. broaden and heighten his abilities in and appreciation for the arts, the sciences, and technology as a means for maximizing his potential for self-fulfillment and for promoting the welfare of others.

In general the policy is still to have work experience as part of the general education programme. The new curriculum clearly shows how the young must acquire the skills and values for work activities in the first course. The objective is accuracy and perfection in skills development. The strategy is greater utilization of technology in fewer projects. The assessment of goal achievement is the high quality of the product of work as well as the proper understanding and attitude toward work as a valued human activity. These are further enhanced in the Work Experience course, which bring the students to the actual work situation.

The inclusion of Work Experience in the regular programme makes it part of the formal education programme and not just an additional activity that is done by the students as an extra curricular requirement.

Some critical aspects of work and vocational programmes at the general secondary level

Seven major aspects have been chosen and analyzed for this presentation. These are deemed to be the directing forces for the success of the work education programme.

Developing work ethic and work habits at school. Every subject in the present secondary school programme integrates values and work. Each unit of work is related to the concepts and skills being learned. As often as feasible some kind of work experience, either mental or psychomotor is assigned to the students.

The formal vocational education programme called the Practical Arts is structured in the same way, but of course, with more manipulative activities.

Vocational orientation and guidance. This is an accepted responsibility of the high school in recognition of the students' need for assistance in the choice of a career. This service is delivered in two ways: (a) through the guidance office/ clinic; and (b) through homeroom activities.

The guidance office is the centre for the guidance services of the school. It offers inventory, information, counselling, placement and follow-up services. The extent of the services varies with the resources of the schools but career guidance is always one of them. Students are guided to proper choices through exposure to the different occupations either by actual exposure in the work place or through lectures by those in the occupation. These are arranged by the guidance co-ordinators.

The homeroom periods are one-hour-a-week periods for guidance. The class adviser facilitates activities towards: (a) students' personality development through an understanding of self, his environment and the social systems; (b) training in citizenship and leadership; and (c) student assistance in career development through a knowledge of himself and the different vocations. These activities run through the four-year high school programme.

Taking education to the work situation. Several alternative schemes are being developed to improve the delivery of high school education while students work. The office of Non-Formal Education of the MECS has developed Distance Learning Delivery. This makes use of modules so that students can work and at the same time avail of a secondary education.

The work done by the students in their regular work place is evaluated with the help of the work supervisors and given credit in the evaluation of the regular academic programme.

Use of local human and material resources. The relative success of the work-oriented programmes in secondary schools depends on the availability of human and other resources with which to support the programmes. In this regard the schools are mostly inadequate.

In view of resource limitations, a good number of secondary schools take various measures to help them in their situations. Tools improvisation allows students to learn this and at the same time produce the tools. Income-generating projects are organized and students earn while the schools generate income for the purchase of the tools. Assistance from people in the community is solicited for the acquisition of facilities and equipment. Resource persons from the community are utilized for instruction.

The issue of addative or alternative technology has been raised. Many schools tend to copy existing indigenous technology in the community, thus, contributing very little to the improvement of such technology. It is planned that technology centres will be organized for the improvement of this strategy.

Work and general education

Assessment of student performance. Evaluation is a continuing process which starts with an analysis of objectives, assessment of the achievement of these objectives using concrete criteria, analyzing results of assessment and taking corrective measures to improve the performance of the programme of instruction.

In the Practical Arts assessment normally covers the acquisition of knowledge as well as the development of skills and attitudes. The first is done through the regular testing procedures. The testing of skills is done through an assessment of projects and their quality. Attitudes are measured not only through the quality of the project but through the observed day to day behavior of the students in the work activities.

Training of teachers. Pre-service education for teachers of work education is provided by about 40 state and private colleges and universities in the country. The programme takes four years and leads to bachelor's degrees in industrial education, agriculture education, or home economics. The courses offer a full mix of general or liberal education, professional education, and majors or technical specializations.

In line with the current thrusts on the development of values and the integration of government thrusts in the school curricula, the different teacher education programmes are being evaluated and analyzed. These are being rewritten to conform to the requirements of the proposed 1989 secondary education curriculum.

Continuous in-service training of teachers is given either through scholarship, training grants, seminars and workshops. These are generally done at the national, regional, provincial and school levels.

Instructional materials. Curriculum and instructional materials are prepared and distributed by different agencies. These may be MECS offices, the state universities or private publishing houses.

The curriculum divisions of the different bureaux plan and develop all curriculum materials. These are curriculum frameworks, lists of learning competencies, curriculum guides and prototype textbooks or other instructional materials.

On the basis of the curriculum materials issued by the bureaux, private publishers participate in the preparation of instructional materials through a MECS Textbook Board and its secretariat. The materials are bought by the schools after they are approved for distribution.

Case studies of pilot and other projects undertaken

The search for innovative approaches to the implementation of policies and the enrichment of work experiences in general education has led to a number of experimental programmes and pilot projects at the national, regional and institutional levels. These projects were designed to provide alternative solutions to the problems faced by the schools as well as to formulate new strategies that will enhance the students' work experiences as required in current policies. Some of these are described here briefly:

Developing barangay high schools into community centres. These are small high schools, generally found in the rural areas, intended to bring high school education "to all the children of all the people of the Philippines regardless of place of birth or of the economic condition of their parents", according to the man who conceptualized them, Dr. Pedro T. Orata.

Since the school and its operations were to be financially supported by tuition fees it was necessary that the students be capable of paying their fees. Therefore, they had to be assisted through income-generating projects right in the school. Over the years this was the problem. The projects were not put up. The Bureau of Secondary Education had to pilot this project to pave the way for making the barangay high schools operate as they should.

The main objectives of the project were:

1. development of a high school curriculum that is responsive to community needs and resources;
2. provision of vocational training in actual work situations;
3. involvement of students, adults, and out-of-school youth in planning and implementing school-community industrial projects;
4. use of the in-school off-school approach in the continuing education of the adults; and
5. setting up income-generating projects to augment the income of the families.

One school in each region was developed. Four of them succeeded in the achievement of the goals. The experience, however, gave the Bureau of Secondary Education valuable insights on how to continue the projects with greater chances for success.

Towards Effective Instruction in Practical Arts – an experimental project in one barangay high school. This was an experiment on how to solve the common problem of lack of equipment and facilities in most general high schools as well as the absence of any one teacher who can teach the different components of the Practical Arts Programme.

The Research and Development Group of the Technological University of the Philippines which initiated the experiment, prepared what they called leaflets. These were actually descriptions and illustrations of learning units for the different components of Practical Arts. Students worked in groups by subject area components so that a limited set of tools was used by each group. The students moved around to work in other areas. This was the "station technique" that was also adopted on a more micro basis in the testing. Students moved around to answer individual questions in a test.

The experiment tried maximizing results through minimum resources. It provided for the maximum use of existing materials and the simultaneous handling of four components by a single teacher.

Suggested education reforms and alternative strategies

Curricular reform. This has started and was discussed under Policies, Plans and Trends. The new emphasis on work experience in the general secondary schools should provide the needed education for high school students on work skills and values.

In-service training programmes for teachers. To assure the successful implementation of new programmes the instructional programme must be strengthened through the orientation and re-training of teachers. These must provide the teachers with:

a) the rationale for the work experience programme in general secondary education within the context of the development requirements of the country; and

b) improved orientation of teachers toward the vocational efficiency objective, and an intellectually and productivity geared methodology for vocational education.

The training of teachers, supervisors and administrators shall be conducted at the national, regional and division levels. Some suggested areas for the content of the training programmes are:

a) The social and economic development, priorities, plans and programmes of the national government and their implications to human resources development;

b) The educational system in relation to the development goals – its functions, structure, delivery systems and evaluative activities;

c) The management of educational plans and activities and content selection and organization; and

d) The preparation of curriculum materials and other instructional devices.

The integration of major concepts, strategies and learning activities in work experiences and values orientations. The training programmes would aim to assist the trainees to:

a) fully implement the practical arts programme of the revised Secondary Education Programme;

b) assist in the improvement and development of existing indigenous technology for countryside development;

c) provide secondary schools with basic tools and equipment for practical arts; and

d) generate production of low-cost and appropriate implements and equipment requirements at the cottage/small-scale industry levels.

WORK EXPERIENCE AS AN INTEGRAL PART OF GENERAL EDUCATION IN THE SOCIALIST REPUBLIC OF VIET NAM

Nguyen Duc Minh

Introduction

After the 1945 August Revolution, Viet Nam's general education schools entered a new era in terms of educational content, aiming to educate the young generation to become all-round developed working people contributing to the national transformation and construction. Work education is considered as a component of general education and the productive work of students becomes a mean of the education process that helps the development of personality. Work activities have been implemented gradually from 1945 to 1958 to instil in the students correct attitudes towards labour, respect for the working people and their products, self-discipline and organization of activities, new style of work, inculcating working habits, mutual assistance, co-operative spirit, etc. However, some more appropriate forms and contents of work education continued to be sought.

Since the school year 1958-1959, productive work has been considered a compulsory discipline in general education schools. A variety of practical activities of students has been introduced, aiming to combine education with production, linking theory to practice and uniting school with society.

In the early 1980s, outstanding schools emerged such as the Bac Ly basic general school and the Hoa Binh Socialist Labour Youth school. At the same time new school models appeared: agricultural general education schools in rural areas and industrial general education schools in towns. The education programmes included experiments and tests in the field of agriculture, cultivation of high-yield rice varieties, crossing, handicrafts and catering services. Many school gardens and school workshops were set up bringing school life closer to the life of local communities.

From 1965 to 1969 new forms of students' work were introduced: building air-raid shelters, underground classrooms and schools at evacuation centres. During this period, therefore, the students could not experience practical work in the school gardens or workshops.

During the period 1960-1970 the objectives of work education were modified, aiming at the building of material bases for work education by the schools themselves. However, due to lack of proper guidance work education left much to be desired both in terms of content and method. Poor results, both in economic and educational terms, especially during the 1965-1968 period, were due to the war. To overcome these shortcomings in October 1970 the Prime Minister's Office issued an Instruction on implementation of productive work in schools and in December 1970 the Ministry of Education issued Circular No. 30 with guidance on

how to implement the Instruction. In short the Government's Instruction was aiming to inculcate in the students proper work habits, work ethics, help to increase the material wealth and living conditions through their participation in productive work.

The objectives of work activities of the students fulfill two main tasks: educational and economic, with emphasis on the educational task. Thus the Government policy gave two directions in work-oriented education :

Productive work to meet the schools needs. Each school should try to furnish itself with the necessary educational facilities through building and repair work at schools; decorating school premises; production of instructional materials; binding books and taking care of the maintenance of classrooms, school yards, stadiums, flower gardens and trees.

Productive work according to the school location in rural or urban settings. In implementing the curricula on home economics, agricultural or industrial technology, students accordingly participate in practical work in technology workshops, in agricultural fields and home economics.

Agricultural work is the main form of work in the countryside, the mountains and coastal areas. This is compatible with the development of the economic zones and helps to develop the local economy in each area. For example, tons of paddy have been produced to help needy students. The schools in the Midlands and Highlands produce industrial crops and students in the coastal areas plant trees to preserve the sea coast or for handicraft materials. Planting and looking after trees, students link knowledge with practical skills thus consolidating what they have learned.

The livestock breeding curriculum includes breeding chickens, rabbits, pigs and fish. Through these activities students understand the principles of live-stock breeding and sanitation. In towns and industrial centres, students practice handicrafts in small industries and domestic arts. Handicrafts involve many students and are appropriate for most schools since the tools required are comparatively simple. Students produce rattan furniture and bamboo roller-blinds for export, bamboo baskets, conical palm-leaf hats, building materials and toys.

In a number of schools many opportunities are available for the building of workshops with the help of the local authorities, the parents' associations and factories. A number of schools build their own workshops in the school premises, others use factories, depending on them for materials, tools, production items and consumption of products. Groups of students are sent to work in farming co-operatives or workshops under different names, such as "Young shoot co-operatives"; "Study well and work well teams"; "Groups of young scientists and technicians", to acquaint them with practical work.

The following tables present the content of work activities in general education in Viet Nam.

Content	*Basic general schools*			
	Towns	*Plains*	*Mountains*	*Sea-coasts*
Cultivation	– Vegetables	– Food crops – Vegetables – Fruit trees	– Food crops – Vegetables – Industrial crops	– Food crops – Vegetables – Soil protecting trees
Livestock-breeding	– Poultry raising	– Poultry raising – Cattle breeding – Fish rearing	– Poultry-raising – Cattle breeding	– Poultry-raising – Semi-salted water fish-rearing – Marine animal rearing
Forestry			– Tree planting	
Small handicrafts	– Knitting – Embriodery – Tailoring – Lace-making – Carpet-weaving – Making simple – Objects of arts	– Knitting – Embriodery – Tailoring – Carpet-weaving	– Rattan-wearing – Bamboo-weaving	– Knitting – Mat-making – Reed-basket weaving – Making simple – art objects
Carpentry	– Repairing tables, chairs – Making simple furniture	– Repairing tables chairs – Making instructional materials	– Repairing tables, chairs – Making simple furniture – Making instructional materials	– Repairing furniture – Making instructional materials
Mechanics Electricity	– Making instructional materials – Maintenance and repairing of domestic appliances	– Making instructional materials – Maintenance and repairing of domestic appliances		
Building materials	– Cinder bricks	– Bricks – Tiles	– Bricks – Tiles – Lime	– Bricks – Tiles
Content	*Secondary general schools*			
	Towns	*Plains*	*Mountains*	*Sea-coasts*
Cultivation	– Vegetables	– Food crops – Vegetables – Fruit-trees – Wood trees	– Food crops – Vegetables – Industrial crops	– Food crops – Vegetables – Soil-protecting trees
Livestock-breeding	– Poultry-raising	– Poultry-raising – Cattle-breeding – Fish rearing	– Poultry-raising – Cattle-breeding	– Poultry-raising – Fresh water fish rearing
Forestry			– Tree-planting	
Small handicrafts	– Study-support work – Life-support work – Tailoring – Embriodery – Lace-making – Making simple – Objects of arts	– Bamboo-weaving – Rattan-weaving – Embriodery – Lace-making	– Bamboo-weaving – Rattan-weaving	– Reed-weaving – Jute-weaving
Building materials	– Cinder-bricks	– Bricks – Tiles	– Bricks – Tiles – Lime	– Bricks – Tiles

Work and general education

Socially useful productive work. This kind of work is carried out in most schools under various forms: repairing and cleaning public utilities; welfare; planting trees; keeping parks and cemeteries of fallen freedom fighters clean; catching butterflies, pests and insects; building dykes; digging irrigation ditches, etc. During harvest time students from towns go to the countryside to help. Many of them spend their holidays working on state farms. In this way they participate in socially productive useful work. This contributes to the inculcation in the students of work ethics, proper habits and skills and helps them to apply theory to practice and to improve their knowledge.

However, there still exist some shortcomings; some schools have paid more attention to academic education than to work education. Psychologically, students are not yet fully prepared to join the world of work, still lacking adequate working skills and knowledge. These shortcomings have been a big obstacle in obtaining suitable employment for school leavers. In order to rectify this problem the Government issued directives to implement vocational orientation in general education schools so as to guide students in the choice of career in conformity with social development requirements and with individual abilities.

At present the work-oriented education and the organization of production in schools are improved and a great variety of work activities are carried out successfully. In order to assess the experiences gained, a conference on work education was held in Vinh Phu (North Viet Nam) and Ho Chi Minh City (South Viet Nam) in the summer of 1984. Based on this, the Education Services in various towns and provinces held conferences on work experience in their localities during the summer holidays. As a result of the outcome of these conferences the following changes have taken place in work education :

Work education is linked with local economic development and manpower employment plans. Students' production work assumes a regional/local character, e.g. in agricultural areas : cultivation, livestock breeding, handicrafts, agricultural products processing; in coastal areas : net-weaving, fishery, marine products processing, salt making, fine art products processing, planting trees to protect the coastline. In this way the students acquaint themselves with the different careers and the employment conditions of the local manpower, which is especially important for school-leavers.

Mobilisation of all resources was launched, especially utilizing local production establishments, to provide work education and vocational orientation. At the present stage of development in Viet Nam it is impossible for the state to equip all schools with enough materials and equipment to promote work education. It is therefore necessary to depend on various local resources offered by various enterprises and students' parents for supply of seeds, capital, land, production tools, workshops and raw materials. In fact schools have obtained land from the cooperatives to plant high-yield rice. They have produced new seeds by crossing and they are responsible for the protection of crops, nursing young plants and trees. The students are sent to work in workshops, factories and state farms.

The content of students' work activities is linked with the teaching of common trades. There is an annual increase of school-leavers (both from basic and secondary general education schools) who do not continue their studies in higher academic institutions and who join the labour force in the localities. Besides developing good morality, cultural and technological knowledge, they acquire also common working skills to take immediate employment without having to go through any trade course or vocational school. The fact that the content of students' work is linked with the training of common trades prepares them for practical life. It also facilitates the rational employment of school leavers. Now in many places short-term training courses are being held to widen the scope of local careers, to train the students who wish to join local production. This endeavour links vocational orientation to trade-training. Work education therefore guarantees, in a way, future employment for the young generation while it is still attending school. Many students leave school with acquired work skills. Many are given certificates by the production units where they have been trained which helps the rational employment of local manpower and encourages students to join local production.

However, if work education is to become an effective educational method that helps to develop the complete personality of the student and link school education to the socio-economic objectives, the following problems should be solved through various strategies :

Teachers and educational administrators at all levels should grasp the principles in a better and practical way; theory must go hand in hand with practice; education must be combined with productive work; school must be linked with society. They should attach due importance to such production activities that acquaint the young generation with the world of work and prepare them to join it. They should guide students in the choice of career in accordance with the demand of national development and individual aptitudes.

The whole nation should be encouraged to help with the education of the young generation by providing materials and technical facilities for work education and vocational orientation. The local authorities and enterprises should help in providing employment opportunities for school leavers. An adequate number of teachers in technology should be trained. A shortage of these teachers has resulted in the poor quality of work education, reducing it to a mere form of isolated work-oriented practices not sufficient for preparing the young generations for life or for practical work.

In conclusion, for nearly 40 years now in spite of innumerable difficulties, the schools in Viet Nam have done much to carry out work education in general education schools. School-leavers have made significant contributions to transforming and building the new society, to develop the national and local economy.

WORK EXPERIENCE AS INTEGRAL PART OF GENERAL EDUCATION IN THAILAND

Swasdi Suwana-agsorn

The world in which we live at present is quite different from the world in which our parents and grandparents lived. Undoubtedly, the world in which our next generations will live will also be much different from ours. There are and will be many changes at present and in the future. The increasing world population has caused problems of decreasing land area for living and planting, malnutrition, crimes caused by poverty and the struggle to live, unemployment because of the limited number of jobs. Moreover, the rapid advancement of science and technology has caused a great deal of change in the way of life in the human societies of the world.

Ideas and efforts to cope with the above problems are evident in the report of the Thailand Educational Reform Committee established by the Cabinet in 1974. It was suggested that education at the elementary school level should include the learning content necessary for everyday living, emphasizing correct work habits and providing the pupils with work experience suitable to their age. At the secondary school level the learning content should emphasize work experience and basic vocational skills related to local needs and community demands so that the pupils can apply what they have learned to earning their living.

The Ministry of Education and other educational agencies also analysed and improved the old curricula of primary and secondary schools, vocational colleges and teachers' colleges, by appointing committees to conduct research and evaluation. It was found that the students educated in these curricula could not gain the skills and knowledge sufficient to help themselves and develop their society as effectively as was expected. This was because the instructional and evaluation processes still emphasized academic content more than vocational skills and the activities that develop the students' personalities.

National education policy on work experience

The 1977 National Education Scheme revised the length of the educational system from 7:3:2 to 6:3:3 years. Compulsory primary education is given for six years, lower secondary education for 3 years and upper secondary education for 3 years. Under the new National Education Scheme, work-oriented and vocational education are emphasized at every educational level. Its objective is formulated as follows. "To instil habits of diligence and thrift, to encourage the individual to equip himself with knowledge and vocational skills in order to earn his livelihood, including taking part in joint enterprises with a co-operative spirit and through lawful means".

In Section 2, it is stated that the state shall endeavour to organize and promote secondary education in such a way as to respond to the country's economic

and social needs as well as to guarantee citizens an equal opportunity to acquire this level of education. Furthermore, work experience shall be provided at this level of education for future employability.

In Article 20 it is also stated that secondary education aims to provide pupils with academic and vocational knowledge suitable to their age levels, needs, interests and attitudes, so that each pupil would be able to choose a useful career for himself in the future.

Another provision, item 36 of the National Education Scheme, states that vocational education aims at training the work force in various levels of skills to meet the needs of each community and society. Vocational education at the elementary education level is geared to creating good work habits in the pupil, enabling him to apply the lessons and work done at school to his daily life. At the secondary education level vocational education aims at providing the pupil with necessary experience and skills sufficient for him to effectively pursue a career, while also preparing him for further studies in relation to his aptitudes and interests.

Curriculum designs for work experience

The Ministry of Education appointed several committees to study and analyse various related data, taking into consideration the recommendations of the National Education Reform Committee and the guidelines stated in the 1977 National Education Scheme. The committee recommended changes in the 1960 Elementary School Curriculum to the 1978 Elementary School Curriculum, from the 1960 Lower School Curriculum to the 1978 Lower Secondary School Curriculum, and from the 1975 Upper Secondary School Curriculum to the 1981 Upper Secondary School Curriculum.

Elementary school level

The new elementary school curriculum includes a group of subjects called work-oriented cluster of subjects which is aimed to teach the students how to work, the merits and values of working and basic skills necessary for future careers, in addition to instilling positive attitudes towards work and proper working habits in the students. The new curriculum allows for local modifications of vocational content, especially in grades V-VI which provide for additional optional subjects so that those who discontinue their studies after grade VI will be better prepared to earn their own living.

Three aspects of work experience are included in structuring the work-oriented group :

1. general work experience in doing daily chores such as sweeping, cleaning, tree planting;
2. basic work experience such as designing, use of tools, assembling, decoration; and
3. basic work-related knowledge such as mathematics, science, law.

Work and general education

Correct work habits and work ethics are also instilled in the pupils. These include discipline, neatness, perseverance, diligence, honesty, etc.

The work-oriented group of subjects comprises three main areas : housekeeping, agriculture and designing and handyman work. For grades V and VI students there are also optional vocational subjects in five areas, namely housekeeping, agriculture, designing, handyman and other career areas.

The time allocated for the work-oriented group is 10 per cent, for grades I-II, 20 per cent for grades III-IV, and 30 per cent of the total learning time for grades V-VI respectively. Practical work is stressed to a greater degree than theoretical work and every step of the working process is emphasized just as much as the finished products so that each student would learn through direct experience good work habits, the ability to successfully carry out assignments and take pride in his finished products. The evaluating procedure takes into account both the theoretical and practical aspects, using various tests, quality ordering forms and rating scales.

In assigning teachers to work-oriented groups, emphasis is placed on the faith and interest of teachers regarding the value of work-oriented subjects. These might include experts from the locality.

Lower secondary school level

1. The new lower secondary school curriculum covers five groups of subjects : language (Thai and one foreign language); science and mathematics; social studies; personality development; and work and vocational education group. The last provides for general education basic to earning an honest living according to each learners' ability and interest. The teaching/learning programmes can be arranged either to be terminal or to be bases for further education.

2. It aims for personality development and offers the youths opportunities to discover their own abilities, interests and aptitudes by giving them both general and vocational education courses suitable to their age levels, individual abilities, interests and aptitudes.

3. It responds to local career needs by taking into account particular conditions and needs of each locality.

4. It allows the learners opportunities to learn from various academic institutions and work establishments.*

The Work and Vocational subjects at this level are divided into work education (compulsory); and vocational education (optional).

The time allotted for work education courses is 4 periods per week (1 period = 50 minutes). These courses are divided into:

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* The 1978 Lower Secondary School Curriculum : Department of Curriculum and Instruction Development, Ministry of Education, 3rd edition, 1982, p. 1.

1. Housekeeping and maintenance;
2. Handyman's work in the home;
3. Agricultural work;
4. Clothing and embroidery work; and
5. Food and nutrition.

The courses aim to instil good working habits in the pupils and to teach them how to work effectively. Students are expected to learn the principles, to know the use of various tools, equipment and materials, to understand the working process and the practical aspects of various fields of work.

Regarding vocational education subject, grade VII and VIII students are allowed to choose at least 6 periods per week whereas grade IX students are expected to choose at least 12 periods per week. The main objective of these subjects is to provide the learners with sufficient vocational knowledge, experience and skills so that they would be able to apply what they have learned to earning their living in the future. The courses are:

1. Agricultural work;
2. Industrial work;
3. Home economics;
4. Business; and
5. Music and dance.

In addition to these courses, the schools can also offer local vocational courses (242 courses are listed in the 1978 supplementary document on vocational education courses, issued by the DCID). Furthermore, the schools can also send their students to learn from local work establishments as stipulated by the Ministry of Education's Regulation on the Acquisition of Knowledge from Academic Institutions, Work Establishments and Independent Career Establishments at the Secondary School Level (1977 revised in 1980 and 1983).

Upper secondary school level

1. The new upper secondary school curriculum emphasizes the selection of groups of optional subjects according to the aptitudes, abilities and interests of each pupil, so that he may be able to apply what he has learned to earning his living in the future.

2. The curriculum aims to provide pupils with experience necessary for pursuing their future careers or for use as a basis for further education.

3. It emphasizes the selection of appropriate science and technology for use in community development, in every day life and earning one's living.

Work and general education

4. It allows the pupil to obtain knowledge and skills from various academic institutions, work establishments and independent career establishments.*

5. The new curriculum states that it is expected to educate pupils "to have sufficient vocational knowledge and skills necessary for everyday life, to have a good attitude towards every type of honest career, to be prepared to earn their living according to their own conditions in order to contribute to the progress of their community and of the nation as a whole.**

There are two parts of compulsory subjects at this level, namely the general education subjects (24 units consisting of Thai language, social studies, health and physical education and science) and the basic vocational subjects (12 units to be chosen from industrial arts, agriculture, home economics, commerce, arts and crafts, and arts education). In addition, each pupil has to choose a sufficient number of optional subjects from a list of approved subjects under the following headings : Thai language, social studies, health and physical education, science, mathematics, foreign languages, industrial arts, agriculture, home economics, commerce, arts and crafts, arts education, or other approved courses.

Now since the new (1981) Upper Secondary School Curriculum and the Certificate of Vocational Education Curriculum are similar in some respects, schools are allowed to also offer optional vocational courses as stipulated by the Certificate of Vocational Education Curriculum, but with appropriate modifications as specified by the Ministry of Education's criteria. Students are also allowed to get credits for courses learned at other academic institutions, work establishments or independent career establishments (subject to the conditions stipulated in the related regulation). This is considered as a great breakthrough in the history of educational development in Thailand. The practice has become possible through the realization that some knowledge or skills can be better learned from experts in the local community; an appropriate regulation was therefore drawn up and enforced.

In summary, it might be said that the purposes of work and vocational education at the secondary school level are to prepare the students who do not wish to pursue higher education for suitable future careers, to give bases for further or more specialized education (for those who do want to continue their studies) and to instil good working habits and correct attitudes towards any type of honest career in the students (which will contribute to the alleviation of the unemployment problem in the future).

Career guidance and counselling

Career guidance is important and necessary at both the elementary and general secondary school levels. Efforts have been made by the Guidance Centre of the Department of Curriculum and Instruction Development to supervise school administrators and teachers, to conduct in-service training for school counsellors,

* The 1981 Upper Secondary School Curriculum : Department of Curriculum and Instruction Development, Ministry of Education, Amarin Press, 1980, p. 8.

** IBID, p. 7.

to publish guidance handbooks, to offer counselling services to students and to utilize the mass media for disseminating information to the general public.

School guidance counsellors usually provide a variety of programmes and activities such as skill aptitude testing, vocational interest surveys, occupational information and placement services and lectures and discussions on particular occupations. Nevertheless, the effectiveness of career guidance depends greatly on the training of qualified school counsellors. Owing to the shortage of personnel and the deficiency of counselling techniques, the Guidance Centre conducts annual in-service training programmes. It is hoped that when every school has at least one qualified school counsellor, career guidance will be more effective.

Current information about different types of careers and changes in the employment market is essential. A system has been developed for establishing closer links between career guidance teachers and personnel from Government and non-government agencies to co-operate in career guidance activities.

Community involvement

In Thailand students are allowed to obtain work experience at various establishments in the local community. This practice has become possible through the realization that some skills can be better learned through direct participation in the work process. According to a regulation issued by the Ministry of Education, the selected work places have to be situated within a reasonable distance from the school itself and prior permission has to be obtained from the employers and the parents. These work places are government or private business establishments. Students follow the rules and regulations of the work place, teachers serve as supervisors and a student work diary is kept.

Inviting experts from the local community to present talks about their professions is another teaching/learning activity that is conducted by the schools.

Problem of developing students for the world of work

Although all levels of curriculum including the Primary School Curriculum of 1978, the lower secondary school Curriculum of 1978, the Upper Secondary School Curriculum of 1981, the Certificate of Vocational Education Curriculum of 1981 and all other vocational curricula, have been revised and improved in accordance with continuing social and economic changes of the nation, there are continuing problems to be solved. At present the problems of vocational education can be summarized as follows :

1. The attitudes of students and their parents: both the parents and the students prefer general subjects to vocational subjects, since most of the students are likely to pursue higher education. They still believe that university graduates are the brains of the country. They can have more pride and opportunities than those who receive vocational education. This negative attitude towards vocational education is very difficult to change and will take time. It will need appropriate guidance and public relations to convince them to be more aware of the importance of vocational subjects.

Work and general education

2. In the teaching and learning of vocational courses (subjects) in the general education stream in both lower and upper secondary schools, problems arise from the lack of appropriate instructional materials such as equipment, tools and shops. Some schools have facilities, but most of these are old and out of date. Also students do not have sufficient skills to perform the tasks prescribed in the curriculum. Unfortunately the large amount of money needed to solve this problem is not available. Therefore it was suggested that one possible solution is to organise one centre for vocational training that will be used by all the students in each province so that they can receive a training of their own choice. Another solution may be the co-ordination of the secondary schools, vocational colleges, technical colleges and local vocational training centres to co-operate in providing training.

3. Generally, both lower and upper secondary schools do not follow the Ministry of Education regulations concerning students who seek experiences from vocational training centres, profit-oriented enterprises and self-employed business of 1980. The schools claim that there are many problems in sending their students out; e.g. these centres do not co-operate sincerely; there are no such places nearby; the school does not have the necessary funds; the parents do not agree to send their children out for fear of their safety.

4. The quantity and quality of vocational teachers is not sufficient, especially at the secondary school level. These teachers need in-service training for both vocational skills and teaching skills, in order to train their students to effectively pursue a career and acquire desirable work habits. In addition, a greater number of vocational teachers are needed to meet the requirements of the schools. Even in the vocational institutes of DVE and the Institutions for Technology and Vocational Education, there are similar problems, i.e. the graduates do not have sufficient qualifications to start their work in government agencies or private companies. Therefore, these vocational institutes must develop the skills and qualifications of their teachers.

5. The lack of participation and co-operation among educational institutes, government agencies, factories and companies in providing both training and employment. Although there is a central office, i.e. the Labour Department, working as a co-ordinator, there are a lot of problems including a lack of jobs.

6. In selecting and planning programmes of studies for students who want to enrol in vocational subjects, the schools lack standardized tests to measure vocational aptitudes. The schools mostly use as criteria the scores in academic subjects which, however, are not direct measures, instead of vocational aptitudes.

7. There is no real co-operation between the organizations that supply man-power and the organizations that demand man-power. That is to say, there is no index to determine supply and demand of man-power in various occupations, and this results in an overabundance of manpower in some occupations and in unemployed workers every year.

Developing effective strategies for implementation of work education curriculum in secondary schools

The Workshop on "Provision of Work Education in Secondary Schools" aimed at evolving effective strategies for developing a work bias in the curriculum, was formed as a part of the national project to improve the work education programme.

A feature of the workshop was that the participants were drawn from different areas of expertise and it was expected of them to undertake a variety of activities ranging from drafting amendments to existing legislation, to preparing specimens of forwarding letters at the school levels. The work spectrum provided a blending of harmony and hard work or people embued with the nationalistic feeling to cause economic development through education.

The participants were deputed by important public and private sectors; viz. General Education Department, National Economic and Social Development Board, National Education Commission, Ministries of Industry, Agriculture, Labour, Office of the Private Education Commission and Rural Development Department. The Workshop was guided by two curriculum experts invited as resource personnel from Japan and India through the courtesy of Unesco. The Workshop programme covered a wide range of themes such as the place of work education in the merging curriculum, the approach to be adopted for content organization at training, and the pupil evaluation scheme. In its organizational structure, the Workshop also adopted plenary sessions, small working groups, and individual assignments.

Conclusions and recommendations

The synoptic presentation of the deliberations of the Workshop on Work Education points to the multi-pronged approach required for an effective implementation of the component of Work Education. The pedagogical discussions were supported by material development. The visits to neighbouring countries by the Mobile Team Members and the reporting of their observations and impressions were quite fruitful. There was a general opinion that the implementation of the scheme should be preceded by the following actions :

1. Legislation on matters pertaining to Work Education and for institutions involved in the programmes of Work Education.

2. Until such time as necessary facilities are universally provided, vocationalisation should be introduced on a voluntary basis in selected schools. The programme should be introduced in phases. The Curriculum Development Centre (CDC) and the Ministry of Education may take action towards gearing the administrative machinery at different levels, i.e. institutional, district as well as national, for creating the necessary infrastructure.

3. To meet the differential work situation and educational opportunities and resources available in different schools, a broad framework and general

guidelines may be provided by the schools. Flexibility may be allowed to the schools for adaptation to their local conditions. Despite the flexibility, the CDC would have to select courses commensurate with the manpower needs of the nation and productivity potential of the students and then allow the schools to provide for the implementation of the programme. It is considered that the Work Education curriculum should be reviewed periodically, say every two to three years.

4. Multi-pronged policies and implementation strategies will have to be evolved for changing the constraints on resources.

5. There is a need for co-ordination between different ministries, departments and agencies. The management and organization of the programme may be done through the formation of committees at various levels, with representatives both from the school and the different organizations.

6. Supervision and evaluation of pupils' participation should be the joint responsibility of the co-ordinator teachers of the school and instructor supervisors of the organization. There should be a system of recognition of the awards for employment purposes.

7. The career and guidance teachers' roles may be redefined in operational terms. Regular information about different types of career and the changing emphasis of the employment market should reach the students.

8. A system has to be developed for establishing close links between career and guidance teachers and personnel from the various organizations.

9. At the Government level, a number of incentive measures may be planned for eliciting better co-operation from industry and from various types of work places. Commendation certificates to those organizations whose help comes readily may be one such measure. These may also be publicized.

10. Multi-pronged efforts have to be made utilizing available media for creating a climate in favour of the Work Education curricular activities. The movement has to start at the Ministry level.

11. Steps with regard to intra-ministry co-ordination and collaboration have to be mooted at the Government level. This calls for joint planning at all levels, from the centre to the districts and the villages.

12. Informative and motivational materials, printed as well as non-printed or audio-visual, should be developed and distributed. These materials should highlight the need for shared responsibilities and mutual co-operation between the school personnel, members of various organizations and parents and students.

The report of the National Workshop on Education and the World of Work, including its recommendations, has been submitted to the Department of Curriculum and Instruction Development (DCID) for approval and support for future practice. In principle, the DCID has approved all the recommendations and supported the proposed plan of the Curriculum Development Centre (CDC) to implement the Work Experience activities in the secondary schools as recommended in the Workshop.

However, before submitting the plan of action to the Ministry of Education to issue the official mandate, the CDC has proposed a three-year pilot project to try out the implementation of Work Experience activities in 12 experimental secondary schools throughout the country. Work Experience activities in these 12 schools will set examples of how such activities can be organized in schools which are different in size, locality, personnel involved, as well as supply of equipment.

The complete text of the projects proposal together with the draft of the Ministry of Education's Regulations Regarding the Provision of Work Experience for Secondary School Students, are shown in Annex II.

Chapter Three

VISITS TO SELECTED PROJECTS

The participants of the Planning and Review Meeting undertook visits to selected projects and institutions in two different settings – one in a rural area and the other in an industrial area.

The first visit was organized to Bac Ly Basic General School, situated in a rural area; with a strong emphasis on raising the living standard of the local community.

The second visit was undertaken to the port city of Haiphong, where secondary level students and teacher trainees receive practical on-the-job training in individual school workshops, in centralized workshops (for common use of several schools) and in industrial enterprises.

Bac Ly Basic General Education School

Background. The Bac Ly Basic General Education School was established in 1963. The school is located in a rural environment, 70 kilometres from Hanoi. It has classes up to grade VIII with an enrolment of 1,221 students, and is committed to the "Teach Well and Learn Well" philosophy.

Objectives. The main aim of the school is to bring overall development to the district in general and in the village in particular with the help of parents and community as a whole through work-oriented education and socially useful work.

Curriculum and programmes. The Ministry of Education, Government of Socialist Republic of Viet Nam, prescribes two optional curricula for work-oriented education for two different regions. The first curricula is meant for the Delta areas and the other – for mountainous areas. The Bac Ly school follows the first curricula as it is located in the delta area. Besides this, the school also considers the requirement of the community while deciding the work schedule of work-oriented education. In this school, work-oriented education starts from grade I onwards. For grades I, II and III, plant nursery raising, planting of flowers and trees are some of the activities, besides folding of paper for toys under manual labour. Cultivation of vegetables and fruits is one of the important activities for the students of grades IV and V. Under manual work, the students start handling knives for bamboo based activities and manupulating needles for thread work and hand stitching. However, in socially useful work they undertake planting and care of trees on road sides. In grades VI to VIII the students are involved in rice cultivation aspects with varied emphasis every year. Besides this, there are other activities like carpentry, wool knitting, tailoring, bamboo crafts, operating rice mill, fish rearing, poultry, tree plantation, etc. In deciding about the activities, age, interest and capability of the student are also given due consideration.

Physical facilities. The school occupies 6.7 hectares of land, of which 6 ha is agriculture land and ponds. The rest is occupied by school building and play grounds. The school has a museum, library and some work-oriented shops which include carpentry, tailoring, knitting, rice mill, bamboo crafts besides classrooms. The ponds are used for lotus cultivation and fish rearing. Some land is used for gardening and raising of medicinal plants. But the major land area is devoted to rice cultivation.

Personnel. The school is headed by a Director with two vice-directors and 47 teachers besides seven supporting staff. Every teacher is responsible for imparting work-oriented education in and outside the school. Most of the teachers are graduates and some have additional qualification. Some of them have some experience and training in work-oriented education. In conducting the activities co-operation of the community personnel is also taken as and when needed.

Observations. The participants of the Meeting observed with satisfaction the discipline, punctuality, preparedness, interest, skills and understanding of the students involved in various types of work-oriented activities. However, the participants noted the shortage of materials, tools and equipment.

Following are some of the activities which the participants saw and observed:

Bamboo crafts. The students of grades VI and VII were undertaking weaving of bamboo baskets and screens. The material required for the purpose is brought by the students themselves. The products are sold in the market and a part of the profit is distributed among students. The visitors were highly impressed by the skills demonstrated by the students. Upon asking some questions regarding the utility of the products, the students were aware of the "what" and "why" aspects of the bamboo-based activities.

Rice mill. This is one of the most innovative activities in the school, which the visitors observed. Four students of grade VIII were operating the rice mill and dehusking the paddy. The mill is used for community work. Besides this the school paddy is also dehusked and sold to the teachers, parents and others. Dehusking for the community is done at the rate of 0.3 Dong* per kg paddy.

Carpentry. The carpentry work is assigned to grade VIII students. This section of work-oriented education involves 12 students in one batch. The teacher has some experience in the activity. The raw material required for the purpose is procured from the market or government shops and the finished product is supplied to the schools in the district through contracts. The students could demonstrate high quality skills in preparing benches and chairs. They were looking like master craftsmen.

Fish rearing. The visitors were informed by the teacher concerned that during the rainy season, fish fry are collected from the Red River and they are placed in the ponds for breeding.

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* Approximately 13.5 South Vietnamese dong (D) = One US dollar.

After two months or so, fingerlings are sold to the co-operatives for fish culture. Through this activity, the school teaches biological subjects to the students and brings the community nearer to the school. The participants saw a few hundred fingerlings in containers for distribution in the community.

Knitting. Mostly female students of grade VII are involved in this activity. The wool required for the purpose is supplied by the school and the product is sold to the students. The skills are imparted in a sequential order. The visitors found that the students were taking a keen interest in the work and had a proper understanding in the matter.

Tailoring. There is a small garment making shop where four machines are installed. Only four students of grade VIII can work simultaneously in the workshop. The participants found that the students have mastered the skills in stitching various clothes. They were able to do minor repairs, if needed, during the stitching. The cloth is supplied by the Government and stitched clothes are sold to the students and to the community. The teacher undertakes the cutting. The teacher informed the visitors that she does not have formal training in this trade.

Gardening. The school maintains a small garden. The observers were informed that some of the medicinal plants which are grown in the garden are used for simple cure of certain ailments among the people of the local community. The ponds are used for lotus cultivation and fish rearing.

Poultry. The group of visitors was informed by the teaching staff that each student rears a bird at his/her residence. The student learns about the feeding schedule, etc. The school does not maintain poulty in order to prevent some epidemic which may occur very often in absence of suitable vaccines.

Special Features

a) The school develops its work-oriented education schedule in consultation with parents and local leaders.

b) The school serves the community through plantation of trees along the road side and takes care of the trees.

c) The school is partially meeting the requirement of the local community in terms of furniture, bamboo products, garments etc.

d) The school has supplied skilled workers to the nearby co-operative farms.

e) The participants observed work plan written on the black board which replaces the use of other instructional materials.

f) The group was informed that the activities can be performed in the absence of the teacher, thanks to the high sense of discipline of the students.

g) Every student and teacher gets some incentive by way of sale proceeds of the products produced in work education programmes.

h) The visitors were also informed that the school contributes to the country's export through lotus cultivation.

i) The school authorities revealed that there is no migration of school graduates to the cities. Hardly thirty per cent or so go to secondary education, the rest remain to work in the local community.

Ngo Quyen Secondary School, Haiphong

The school exemplifies an urban industrial work-oriented school. It is located in the city of Haiphong, a port city, which is 92 kilometres away from Hanoi.

Objectives of the school's work-oriented programme. The school aims, through work, to :

1. develop good work habits and co-operative work activities among students;
2. assist in the socio-economic and community development;
3. prepare skilled workers under trained workers;
4. produce school equipment and materials for the school; and
5. promote the co-ordination of school training activities with the world of work.

Insights from the visit. The school has about 1,500 students. They welcomed the guests excitedly. The participants were just as excited to see the young people in the school working in school projects and being trained to do work with great skill.

At the time of the visit some boys from the upper grades were engaged in foundry practice. They were working with skilled workers in the making of vats from scrap iron pieces melted in the furnace. Other boys were observed filing metal pieces in the fitting shop and arc-welding metal profiles in the open air.

Girls were embroidering table cloths or making shirts and, at the same time, perfecting their skills with the needle or the sewing machine. Others were making doilies and acquiring needlecraft skills, artificial flowers or finely crocheted plastic bags.

In all the activities, there was evidence of the teachers or the technicians requirement for a high degree of quality in the products as work plans that were written on the blackboard were executed.

Linkages with industrial enterprises. Ngo Quyen school has very strong linkages with industry. Students are taken to the factories for awareness to the world of work. Later, they are provided with apprenticeship opportunities. The participants were also informed that after graduation, many of them go to work in the factories.

Although not all factories allow apprenticeship now, it is planned that by 1985, they will all be required to do so. That will provide the students learning experience in the actual work site. The exposure to work in the factories also serves as a form of career guidance.

Centralized Polytechnical and Vocational Training Workshop, Haiphong

A short distance away from the school is a centre for training teachers as well as students. It serves six schools and trains teachers from 30 schools, running two shifts daily. There are more than 40 such centres serving 426 districts in the Socialist Republic of Viet Nam.

They provide training in tailoring, embroidery, cloth designing, needlecraft, trade and industrial work in electricity, blacksmith practice, carpentry and other work training experiences. The activities are directed by technicians and skilled workers from the community. Schools are given one day a week in this particular centre on which to send their students for training.

The centre is a moderately equipped vocational centre for welding, sheet metal, carpentry, machine tool making and blacksmith work. Machinery for carpentry, lathes, vices, files are available. It is noteworthy that boys and girls work together in many of the activities. Girls are learning to file and use lathes. Most of them are, however involved in the traditional girls' work areas such as embroidery, tailoring and handicrafts.

Chapter Four

SUGGESTIONS FOR FUTURE ACTIVITIES

Realizing the need for work-oriented education to support national development efforts, and for sustaining and further strengthening the present programme, the participants suggested the following activities to be pursued at the national and international levels :

At international level

1. Publication and dissemination of research and studies on work-oriented education to different countries.

2. Promotion of study visits to countries with effective projects to be planned with contributions from participating countries.

3. Encouragement of bilateral workshops with assistance from APEID.

4. Exchange of instructional materials developed in national workshops among different countries to be co-ordinated by APEID.

5. More financial assistance from various resources to be sought and used by governments to benefit a broader spectrum of the population.

6. Promotion of more research at the grassroots level for projects based on specific needs and resources of communities.

7. Support of innovative projects in work-oriented education to be developed as models for different countries.

8. Greater use of the media to support work-oriented education; development of tapes, modules, etc., for use in all countries to bring information to teachers, students and people in the community.

9. Sub-regional workshops to develop exemplar instructional materials for countries use.

At national level

1. Publication and use of the training manuals prepared in the meeting, with necessary adaptations for the specific needs in each country.

2. Study visits within the country for educational administrators, curriculum planners, supervisors and school personnel to promote exchange of ideas.

3. Co-operation between government and private sectors for the utilization of resources for the work experience activities of students.

Work and general education

4. Workshops for the preparation of evaluation instruments for work-oriented education.

5. Co-ordinate the assistance and contributions from different agencies for their maximum use through planned synchronization of activities.

6. Utilization of different forms of mass media to promote public acceptance and co-operation in work-oriented education.

7. Greater efforts to emphasize work ethics and proper work habits in the learning activities through the training of people involved in the programme, pre-service and in-service.

8. Greater emphasis on intensive agriculture and the development of agriculturally-oriented activities.

9. Promotion of school-based supervision for direct assistance to teachers in the improvement of instruction and projects.

10. Encouragement of greater community involvement in the projects.

11. Encouragement of national workshops with assistance of APEID.

Annex I

APEID Review and Planning Meeting on Work as Integral Part of General Education, Hanoi, Socialist Republic of Viet Nam
18-25 October 1984

AGENDA

1. Opening of the Meeting.

2. Consideration of the provisional schedule of work and introduction of documents.

3. Constitution of working groups.

4. Presentation and consideration of issues and problems faced by the countries, shareable experiences, future plans and relevant findings of research and evaluative studies. These will particularly consider preparatory general education, creative production and socially useful work and moral qualities such as sense of responsibility, team spirit and pride in one's work.

5. In-depth study of selected aspects, such as: curriculum content, teacher training, management aspects, career guidance, evaluation of achievements, etc.

6. Consideration and finalization of draft training manual and concrete suggestions on development of action programmes at national and regional levels.

7. Closing of the Meeting.

Annex II

PILOT PROJECT ON PROMOTION OF WORK EXPERIENCE ACTIVITIES FOR SECONDARY SCHOOL STUDENTS IN THAILAND (Fiscal Year 1984-1986)

1. Background

Between 27-29 June 1983, and 20-22 July 1983, the Curriculum Development Centre (CDC), Department of Curriculum and Instruction Development (DCID), Ministry of Education (MOE) conducted a workshop on "Provision of Work Education in Secondary Schools" at the Curriculum Development Centre (CDC) and the Asia Pattaya Beach Hotel, Cholburi, respectively. Financial assistance for the workshop came from Unesco. The 38 participants consisted of representatives from the Ministry of Agriculture and Co-operatives, the Ministry of Commerce, the Ministry of Industry, the Office of the National Economic and Social Development Board, the Office of the National Education Commission, the Ministry of the Interior and the Ministry of Education (Department of General Education, Department of Vocational Education, Office of the Private Education Commission and Department of Curriculum and Instruction Development). Two foreign experts (one each from Japan and India) participated as workshop consultants.

The main objectives of the workshop were as follows :

i) to lay down guidelines for the arrangement of work experience activities for secondary school students;

ii) to prepare samples of related documents and material for such arrangement;

iii) to obtain a consensus for presentation to the Ministry of Education and to the Government so that the project might be implemented nationwide.

2. Rationale

The unemployment problem in Thailand is a major one which will become even more severe in the future if appropriate strategies to cope with it are not effectively implemented. One can become quite worried just by looking at the ever increasing number of "educated unemployed". There are several possible remedial measures such as increase of investment, expansion of jobs in rural areas, revision of curriculum and courses in career education to be conformed to the needs of the labour market (both at the present time and in the future), provision of systematic vocational guidance service in schools, instillation of good working habits, instillation of good attitudes towards any type of honest occupation, etc.

Another useful method might be provision of work experience for all secondary school students according to their aptitude and interest in collaboration with various work places (both governmental and non-governmental). The emphasis here is on "first-hand experience", i.e. "experiencing through actual practice" (not merely through observing as in the case of a study visit or a study tour). The main objectives of such work experience activities are as follows :

i) to provide opportunities for all secondary school students to have first-hand experience with the various occupations in the community for a period of not more than 12 days per semester;

ii) to enable secondary school students to survey their aptitudes and abilities, to learn about and understand the real world of work and to learn how to adapt themselves to suit particular working conditions;

iii) to counsel secondary school students how to plan for and wisely choose their future career;

iv) to help alleviate the problems of educational wastage and unemployment, thus conforming to the manpower development policy of the Government.

3. Objectives

i) to give financial and academic support to enable secondary schools under this project to try out work experience activities in collaboration with various work places according to the stated guidelines and regulations;

ii) to follow up and analyse the results of the trials in order to improve the efficiency of such activities before enforcing all secondary schools to carry out such projects using their regular budget;

iii) to prepare documents, equipment and materials for publicizing the benefits of such work experience projects;

iv) to present relevant data to the Ministry of Education for its consideration and to propose to the Ministry that all secondary schools be required to carry out such activities.

4. Responsible Agency

The Curriculum Development Centre, DCID, MOE.

5. Targets

i) Four randomly-selected schools each year for three years.

ii) Approximately 400 students per year. (Approximately 100 students from selected educational regions. Total : 1,200 students (Approx.).

iii) Fiscal years 1984-1986.

6. Procedure

i) Presenting the draft of the project to the DCID and the MOE for their consideration and approval.

ii) Printing and disseminating approved guidelines and regulations to the related agencies.

iii) Co-ordinating with various agencies such as the Department of General Education, Office of the Private Education Commission and Regional Educational Offices in selecting schools for the project.

iv) Allocating financial support to schools selected in (iii) as follows : 75,000 baht per year for selected schools in the project.

v) Assigning officials to follow up and evaluate the performance of schools in the project. (About 3-4 officials per educational region).

vi) Summarizing the analysis of the follow-up and evaluation and presenting the results and recommendations to the DCID and the MOE.

7. Expected Outcomes

i) Approximately 1,200 students from 12 schools who would benefit from having had work experience according to the project.

ii) At least 1,000 work places would participate in the project.

iii) An effective strategy for combatting the unemployment problem and for strengthening the vocational guidance process would be obtained.

Annex III

APEID Review and Planning Meeting on Work as Integral Part of General Education Hanoi, Socialist Republic of Viet Nam, 18-25 October 1984

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LIST OF SELECTED APEID PUBLICATIONS RELATING TO EDUCATION AND WORK

* *Report of work plans of APEID for the second programming cycle, 1978-1981. 1977.*

* *Work and learning; final report. 1978.*

* *Developing instructional modules for teacher education: selected exemplar modules. 1978. (Section 1)*

* *Development of productive skills; report. 1979.*

Inventory of Educational Innovations in Asia and Oceania, EIA Nos. 96-109. 1979. (on vocational and technical education)

Planning and programming for the third cycle of APEID: a framework; report. 1980.

Evaluating pupil development – Productive skills training; moral education. 1980.

* *Developing instructional materials for productive skills; report. 1980.*

Inventory of Educational Innovations in Asia and the Pacific, EIA Nos. 145-172. 1981. (on vocational and technical education)

* *Integrating subject areas in primary education curriculum – a joint innovative project; report. 1982.*

Education and work in general secondary schools; report. 1982.

Business and commercial education: development of curricula, instructional materials, physical facilities and teacher training; report. 1982.

Social and technical interaction with education, by Phillip Hughes. Occasional Paper No. 13. 1984.

New trends in technical teachers training; final report. 1983.

Work as integral part of general education: synthesis of experiences – India, Indonesia, Philippines, Thailand, Viet Nam. 1985.

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* Out of stock

The Asia and Pacific Programme of Educational Innovation for Development (APEID) has as its primary goal to contribute to the building of national capabilities for undertaking educational innovations linked to the problems of national development, thereby improving the quality of life of the people in the Member States.

All projects and activities within the framework of APEID are designed, developed and implemented co-operatively by the participating Member States through over one hundred national centres which they have associated for this purpose with APEID.

The 25 Member States participating in APEID are Afghanistan, Australia, Bangladesh, China, Fiji, India, Indonesia, Iran, Japan, Lao People's Democratic Republic, Malaysia, Maldives, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, Republic of Korea, Samoa, Singapore, Socialist Republic of Viet Nam, Sri Lanka, Thailand, Tonga and Turkey.

Each country has set up a National Development Group (NDG) to identify and support educational innovations for development within the country and facilitate exchange between countries.

The Asian Centre of Educational Innovation for Development (ACEID), an integral part of the Unesco Regional Office for Education in Asia and the Pacific in Bangkok, co-ordinates the activities under APEID and assists the Associated Centres (AC) in carrying them out.

The programme areas under which the APEID activities are organized during the third cycle (1982-1986) are:

1. Universalization of education: access to education at first level by both formal and non-formal means;
2. Education for promotion of scientific and technological competence and creativity;
3. Education and work;
4. Education and rural development;
5. Educational technology with stress on mass media and low-cost instructional materials;
6. Professional support services and training of educational personnel;
7. Co-operative studies and innovative projects of research and research-based experimentation related to educational development.